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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,122	12/21/2000	Hiroshi Miwa	1001-0010	7635

7590

09/10/2003

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EXAMINER

VINCENT, SEAN E

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,122

Applicant(s)

MIWA, HIROSHI

Examiner

Sean E Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 16, 22-24 and 31-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Falls (US 3616098). The etching composition of claim 16 can be found in col. 3, lines 7-36: "Ammonium bifluoride crystals 10 to 50 parts and preferably 20 to 40 parts by weight Hydrofluoric acid (based on 1 to 20 parts and 70% HF) preferably 5 to 10 parts by weight HF) Potassium Fluoride 0.1 to 20 parts and preferably 0.5 to 5 parts by weight Diethylene glycol 0 to 50 parts and preferably 20 to 30 parts by weight Water 10 to 50 parts and preferably 25 to 45 parts by weight." "Other inorganic salts such as sodium bifluoride or calcium phosphate can be substituted for the potassium bifluoride. The diethylene glycol, or other soluble or miscible organic liquid, preferably a polyol, assists in controlling the uniformity of the etched frost of the surface. Suitable substitutes for diethylene glycol include ethylene glycol, propylene glycol, glycerine, sorbitol, corn syrup, pentaerythritol trimethylol propane or the like."
3. Claims 16, 22-24 and 33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Brink (US 4897213). Brink teaches an etching composition having 11.2% ammonium bifluoride; 18.7% denatured alcohol or ethanol; and 70.1% water (col. 2, lines 1-30). Because Brink teaches a composition which is identical to applicant's it must have the same properties as applicant's and would be usable to etch glass as well as stone.

Claim Rejections - 35 USC § 103

4. Claims 17, 18, 21, 27-30 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falls in view of Gimm et al (US 5281350). Falls did not teach the addition of a gelling agent or sucrose. Gimm et al. teach using sugar (sucrose) as a gelling agent (col. 2-3, lines 65-68, 1-5 the flow modifier acts as a gelling agent). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a gelling agent and/or sucrose in Falls because Gimm et al taught that the etchant performance was enhanced by the use of a flow modifier.

5. Falls did not teach using a dye. Gimm et al. also teaches including a dye in the composition for printing (col. 3, lines 50-55). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a dye in Falls because Gimm et al taught that known silk screening inks could be used also as etchant vehicles.

6. Falls did not teach masking the glass. Gimm et al. teach a method of etching glass including the steps of cleaning the glass and drying it, masking the glass surface, dipping the glass into the etchant, and cleaning the glass surface again with water (col. 3, lines 24-45). Gimm et al. also teaches silk screen printing as a means for masking the glass substrate (col. 3, lines 50-55). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to mask portions of the glass using silk screen printing techniques in Falls because Gimm et al demonstrated the obvious benefits of using established printing equipment for applying etchants.

7. Falls and Gimm et al failed to teach brushing or applying from a tube. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to brush

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the etchant or apply it from a tube because in flow-modified form, the etchant of Falls and Gimm et al would behave like many well-known printing inks which can be applied by hand with a variety of instruments. Examples of well-known methods can also be found in De Rossett, Jr (US 4985115) col. 4, line 43 to col. 5, line 4.

8. Claims 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Falls in view of Rhodenbaugh (US 4921626).

9. Falls did not teach the use of citric, acetic or phosphoric acid and a buffer for adjusting the pH of the etching composition. Rhodenbaugh teaches that it is known to adjust the pH of the glass etching composition using citric or phosphoric acid (col. 2, lines 14-23). It would have been prima facie obvious at the time the invention was made to combine Rhodenbaugh's teachings with Falls etching composition because Rhodenbaugh taught that controlled release of hydrofluoric acid would be possible.

10. Claims 17, 25, 27-30 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falls in view of Hogan (US 4781792). Falls did not teach a gelling agent. Hogan taught that it was well known to add polyvinyl alcohol or polyvinyl pyrrolidene to glass etchants as a thickener. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to add the thickeners of Hogan to Falls because Hogan taught that thick glass etchants could be brushed onto vertical glass surfaces without running (see col. 7, lines 33-68 and col. 9, lines 20-29).

11. Claims 19, 26, 34 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falls in view of Dillarstone et al. (US 4181623).

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12. Falls did not teach using a surfactant. Dillarstone et al. teach that it is well known in the art to use anionic (such as dodecylbenzene sodium sulfonate) and non-ionic surfactants in hydrofluoric acid compositions (col. 2, lines 7-25, col. 3, lines 24-40). It would have been prima facie obvious at the time the invention was made to combine Dillarstone's teachings with Falls' etchant composition because such surfactants would provide for better wetting of the substrate to be etched and would also provide for better smoothing of the etchant over the surface.

Response to Arguments

13. Applicant's arguments with respect to claims 16-38 have been considered but are moot in view of the new ground(s) of rejection.

14. In response to applicant's argument that Brink is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Brink is not simply a cleaning agent. Brink is a cleaning agent for granite surfaces typically cleaned by strong acids or sandblasting (see Brink col. 1, lines 5-28). It is the position of the examiner that the cleaning agents of Brink would inherently etch glass as well as granite. It is immaterial what properties are claimed by Applicant because the composition is the same and thus must necessarily exhibit the same properties, see *Titanium Corp. v. Banner* 227 U.S.P.Q. 773, (Fed. Cir. 1985).

15. In response to the argument that Brink cannot anticipate the claims because it is not an open-ended "comprising" composition, the examiner disagrees. This argument is not well taken

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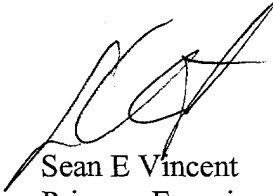
for several reasons. The applicant's claims are given the broadest possible interpretation in determining the relevancy of related prior art. Since applicant's claims are indeed open-ended, they read on Brink et al and many other prior art disclosures. There is no two-way test for establishing whether a prior art disclosure anticipates a claim. If a claim is broad enough to read on a prior art disclosure, the prior art anticipates the claim. Furthermore, although claim 1 of Brink was previously relied upon for a citation in the anticipation rejection, the rejection now relies upon the composition from Brink's disclosure which does not use "consisting of" terminology. Since the disclosed proportions sit squarely within the applicants claimed ranges, the claimed ranges are anticipated, see *Titanium Corp. v. Banner* 227 U.S.P.Q. 773, (Fed. Cir. 1985).

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E Vincent whose telephone number is 703-305-3607. The examiner can normally be reached on M - F (8:30 - 6:00) Second Monday Off.

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

18. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



Sean E Vincent
Primary Examiner
Art Unit 1731

S Vincent